CLAIMS

1. An sheet-shaped insert-bonded cylindrical article molded by insertion molding, comprising a cylindrical molded body, and an insert bonded to an outer peripheral surface of a barrel portion of the cylindrical molded body on molding, wherein a mark of an injection gate opening is positioned at an inner peripheral surface of the cylindrical molded body while being inwardly apart from an upper end of the insert in an axial direction and at a position corresponding to an inner portion of the insert as viewed in width directions from opposite sides of the insert.

2. The label-attached cylindrical article set forth in claim 1, wherein the insert is bonded to a circumferentially entire outer peripheral surface of the cylindrical molded body, and the mark of the injection gate opening is located in a position avoiding a butted portion of both side portions of the insert.

3. A method for insertion-molding an insert-bonded cylindrical article by insertion molding with use of an insertion injection molding mold comprising an outer mold unit having a pull-out mold unit and defining a core-inserting space therein, and a core to be inserted and fitted into the outer molding unit, said method comprising fitting, closely attaching and holding an insert along an inner peripheral surface of the outer molding unit in a molding cavity defined between the outer mold unit and the core inside the injection molding mold, injecting a molten resin, through an injection gate opening provided in the core, toward an inner peripheral surface of the molded body at a position inwardly apart from an upper end of the insert in an axial direction and corresponding to an inner portion as viewed in width directions from opposite sides of the insert, curing and forming the cylindrical molded body while pushing the insert onto the inner peripheral surface of the outer molding unit with the molten resin, and thereby producing the insert-bonded cylindrical

article comprising the molded body and the insert integrally bonded to an outer peripheral surface of a barrel portion of the cylindrical molded body.

4. The molding method set forth in claim 3, wherein the insert is fitted, closely attached and held along a circumferentially entire inner peripheral surface of the cavity of the outer molding unit, and the molten resin is injected toward a position avoiding a butted portion of both side portions of the insert.

5. The molding method set forth in ~~claim 3 or 4~~ Claim 3, wherein a knock-out pin is provided in the core and which further comprising upwardly pulling out the pull-out mold unit of the outer mold unit after the insertion molding, cutting connection between the cured resin inside the injection gate opening and the cylindrical molded body by raising the knock-out pin, and removing the cylindrical article from the core by pushing a bottom portion of the cylindrical molded body.

6. The molding method set forth in ~~any one of claims 3 to 5~~ Claim 3, wherein the insert is fitted, closely attached and held in a cylindrical shape along the inner peripheral surface of the outer mold unit in the molding cavity inside the injection molding mold by partially fitting the insert in a cylindrical shape into the outer mold unit of the mold in a state that the core of the injection molding mold is pulled out from the outer mold unit and the molding cavity is opened, forwardly moving the core into the outer mold unit, and applying a contact frictional force between the core and the insert.

7. An apparatus for molding an insert-bonded cylindrical article comprising a cylindrical molded body and an insert integrally bonded to an outer peripheral surface of a barrel body of the cylindrical molded body, said apparatus comprising an outer mold unit having a cylindrical pull-out mold unit and defining a core-inserting space therein, a core to be inserted into the core-inserting space of the outer molding unit from one end thereof and to define a molding cavity between an inner peripheral surface of the core-

molding space, and a releasing tool for releasing the shaped insert-bonded cylindrical article from the mold, the outer molding unit comprising a barrel portion-molding mold unit having said core-inserting space and an end portion-molding mold unit to be engaged with the barrel portion-molding mold unit at the other end of the outer mold unit, having a molten resin-injecting opening and being capable of moving outside from an end portion, and the core having a gate hole communicating with the molten resin-injecting opening at one end, having the other end that is at the outer peripheral surface of the core and axially inwardly from the end portions of the insert fitted along the outer peripheral surface of the core-inserting space and at an inner portion of the insert located inwardly from both width sides of the insert.

8. The molding apparatus set forth in claim 7, wherein the insert-bonded cylindrical article has a mouth portion, and the end portion-molding mold unit comprises a molding mold end disc, as the pull-out mold unit, having a molten resin-injecting opening, and a mouth portion mold unit to be engaged with the mold end disc and form the mouth portion of the cylindrical article.

9. The molding apparatus set forth in ~~claim 7 or 8~~ Claim 7, wherein radial molten resin runner grooves are formed at a joint face between one end of the core and the end portion-molding mold unit , and one end opening of the gate hole is to communicate with end portions of the running grooves.

10. The apparatus set forth in ~~any one of claims 7 to 9~~ Claim 7, wherein the outer mold comprising a stopper mold movable axially and adapted to form the other end of the cylindrical molded body, and the releasing tool is said stopper mold.

11. The apparatus set forth in ~~any one of claims 7 to 10~~ Claim 7, wherein the releasing tool further comprises a knock-out pin provided movably forwardly and rearwardly in a central portion of the core, and connection between the

cured resin inside the injecting gate opening and the cylindrical molded body is cut by raising the knock-out pin.